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ABSTRACT

This paper examines the range of resources required to plan, develop and implement magnet schools. Information is based on a comparative study of the relative costs of magnet and regular schools in a large, urban school district over a six-year period. Using traditional measures of per student costs, the study found that real spending per pupil has nearly doubled in the last 25 years. However, the most significant shift in resources was from salaries for classroom teachers to other types of school spending, including fixed charges (such as fringe benefits for school employees, administration, and maintenance and operation of school facilities). Examining per student costs in relation to cost/benefit theory, the study found that magnet schools may well be worth the additional expense because they produce better students and build public confidence in schools. In addition to this analysis, the paper describes a prototypical model for planning resource allocations for magnet schools. This model outlines important issues which affect the resource needs of magnet schools, including human resource and physical resource issues. This model emphasizes the considerable need for comprehensive resource planning if magnet schools are to be effective in attracting students and promoting quality education. Such a "resource leveraging" plan would both detail the costs of the many elements which make up a magnet school and identify the sources of the needed resources. Recommendations for further research are presented in conclusion. (KH)

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PLANNING RESOURCE ALLOCATIONS FOR MAGNET SCHOOLS

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MAGNET SCHOOLS: RESOURCE ALLOCATIONS

INTRODUCTION

Study Purpose

Resourcing magnet schools, how to pay for their many components and the myriad of activities associated with their success, is always a formidable challenge to school districts which, in the main, are enmeshed in the perennial problem of how to finance education. This challenge is even more formidable when there is not careful and comprehensive planning designed to reduce the anxiety experienced by school districts in this effort by minimizing unanticipated costs. In addition to a detailed and comprehensive plan which identifies the interrelationships of components, activities and functions which must be resourced if magnet schools are to be successful, there must also be a resource plan which focuses on their support.

This paper provides an examination of the full range of resources required to plan, develop and implement magnet schools. Such an examination implies more than the operation and maintenance of such schools. It also includes the provisions for the following: program planning and curriculum development; identification, selection and training of staff; assessment, identification and selection of students; determination and ordering of specialized instructional materials, furnishings, equipment; movement and supervision of students from home areas to various points of

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instruction, including field experiences which are perceived to be crucial to the magnet school programs; public relations tasks necessary to keep the community informed; activities in marketing of magnet schools and their programs; specialized programs for parents and community agencies and leaders who have a stake in such schools and their operations; building construction and/or modifications required to support such programs; travel, consultations and visitations for strengthening program conceptualization and operations; relocation of students, staff, furnishings, and equipment; supervisory oversight; budget planning and management necessary for responsible fiscal control; and evaluation and assessment activities to provide for program efficiency and to keep it on track. In short, the paper is concerned with the full array of functions and activities which have resource implications for the comprehensive planning and successful operation of magnet schools.

Additionally, the paper describes a prototypical model for planning resource allocations for magnet schools. Models for resource planning are valuable for developing a comprehensive plan. Several models are suggested for districts to consider in magnet school resourcing.

Third, important issues are outlined which affect the resource needs of magnet schools. A key issue is educational equity, especially as it relates to comparability of support for each child in a given school district; i.e., comparability of building conditions, quality of teaching and support staff, quality of student culture, and supervisory oversight. Such issues as these may well give rise to related policy infer-

ences which must be made in the establishment of magnet schools.

Finally, the paper formulates conclusions about magnet school resource requirements and frames additional questions or issues which would be fruitful for future, in-depth examination both for better understanding of magnet schools and their resource needs specifically and of the funding of education generally.

Methodology

One key aspect of understanding magnet school resourcing is derived from comparing relative costs of magnet and regular schools in a large, urban school district over a six-year period. This comparative study will attempt to shed light on the relative costs among magnet schools, as well as average costs of magnet and regular schools of this district. This comparison shall be undertaken by a look both at traditional per student cost measures in examining and evaluating resource requirements of schools, and an examination of relative costs in terms of a cost benefit theory.

Finally, the methodology will include an examination of relevant literature on the resourcing of magnet schools, scant though it is, and on the observations and impressions of respected colleagues both in this district and in other large, urban districts which have experience in the funding of magnet school programs.

The findings will reflect an in-depth examination of a single, large urban school district and its experience in resourcing magnet schools. Certain representations in this study result from a closely reasoned approach to the issue of costs, cost shifts and cost trends. Important though reasoning is in building a theoretical context

for issues and findings, the study would be immeasurably enhanced by an in-depth understanding of the actual experience of school districts in dealing with costs associated with magnet schools in a larger-scaled study.

TRADITIONAL MEASURES IN EXAMINING AND EVALUATING RESOURCE REQUIREMENTS OF MAGNET SCHOOLS: A QUESTION OF COMPARABILITY AND IMPACT

A recent study (Sherman, 1985) of resource allocations and staffing patterns in the public schools of the nation reveals trends in resource allocations over the last 25 years. That study reflects that real spending per pupil has nearly doubled. However, among many trends observed, perhaps the most significant is the shift in resources from salaries for classroom teachers to other types of school spending, most notably in the areas of: 1) fixed charges - spending comprised largely of fringe benefits for school employees, 2) school administration and 3) maintenance and operation of school facilities. Such trends are also prominently in evidence in the analysis of magnet school spending.

Per Student Cost Measure

Perhaps one of the more widely used measures to explain the dollar support necessary for education is that of per student cost. This measure is not only widely used, but it also has a long history of use. Accordingly, educators have come to accept the per student cost measure as a reasonable and rational method for examining resources required to support various school operations. One of the problems associated

with the use of per student cost measures is that of definition. Sometimes the per student cost measure will represent only direct instructional costs; sometimes this measure will represent both direct instruction and support costs experienced in a given school, without considering central office administrative costs associated with oversight and logistical support in that school's operations. In other instances, the per student cost measure may or may not be reflective of long-term equipment purchases and/or specialty modernization or building erection costs which are amortized over a number of years; and, obviously, there can be other variations in measurement of per student cost. Despite the many variations that are employed, the per student cost measure has wide acceptability in the educational community.

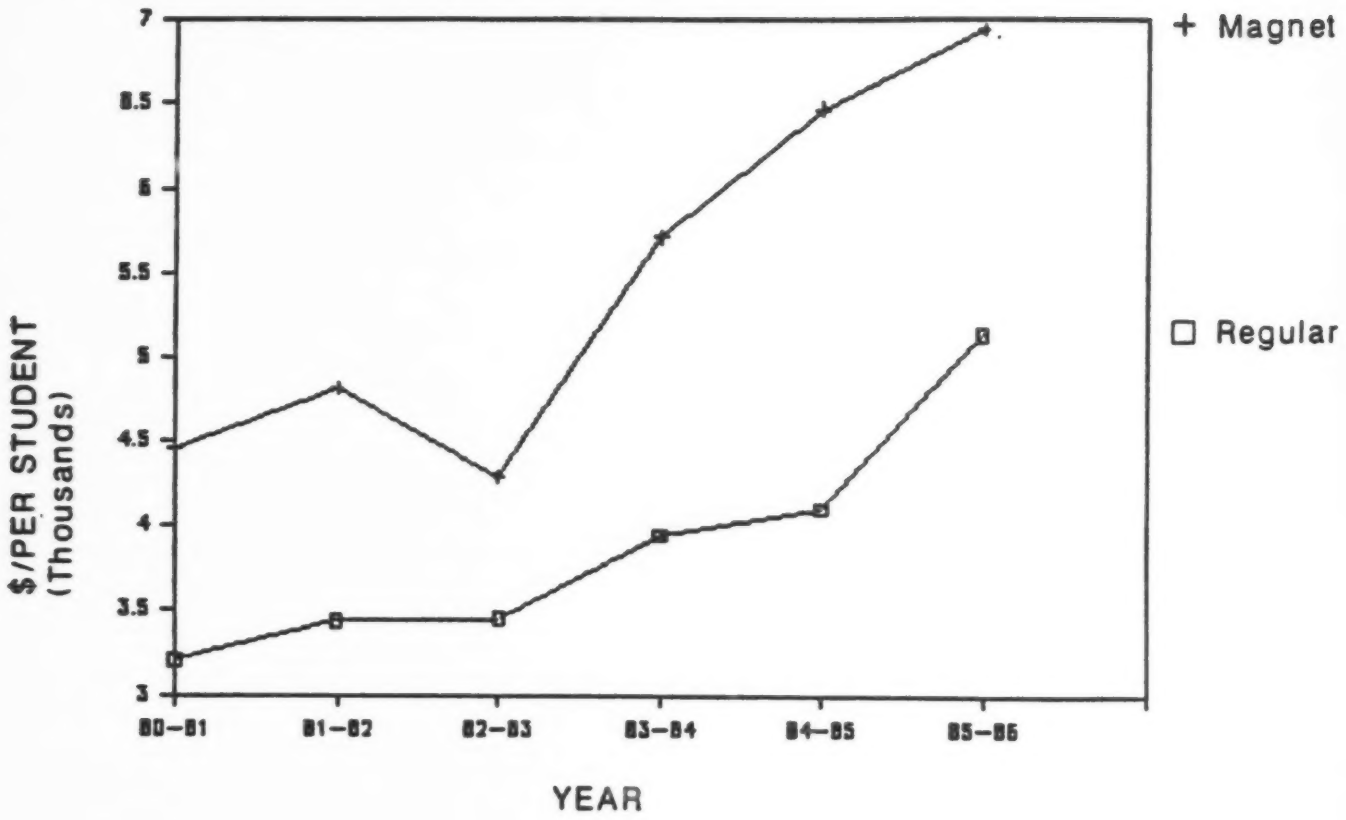
Regardless of how the per student cost is measured, experience has shown that the establishment of magnet schools usually requires an outlay of capital beyond that which is considered for other schools of a district. Experience has also shown that the establishment of magnet schools requires a host of activities initially, and to some extent continuing, which are to a lesser degree the concern of school personnel in the support of regular schools. Start-up costs such as building modifications and the acquiring of stationary and/or specialized equipment are associated with magnet schools, and these can be prohibitive. Additionally, staff development activities which can be crucial to the success of such schools are extensive in the early months and years of the school's operation. Yet, there are continuing costs, perhaps to a higher degree than would be expected, in the areas of continuing staff development

activities in support of the school's specialty program and in the transportation of its students, to name but two areas of cost variability.

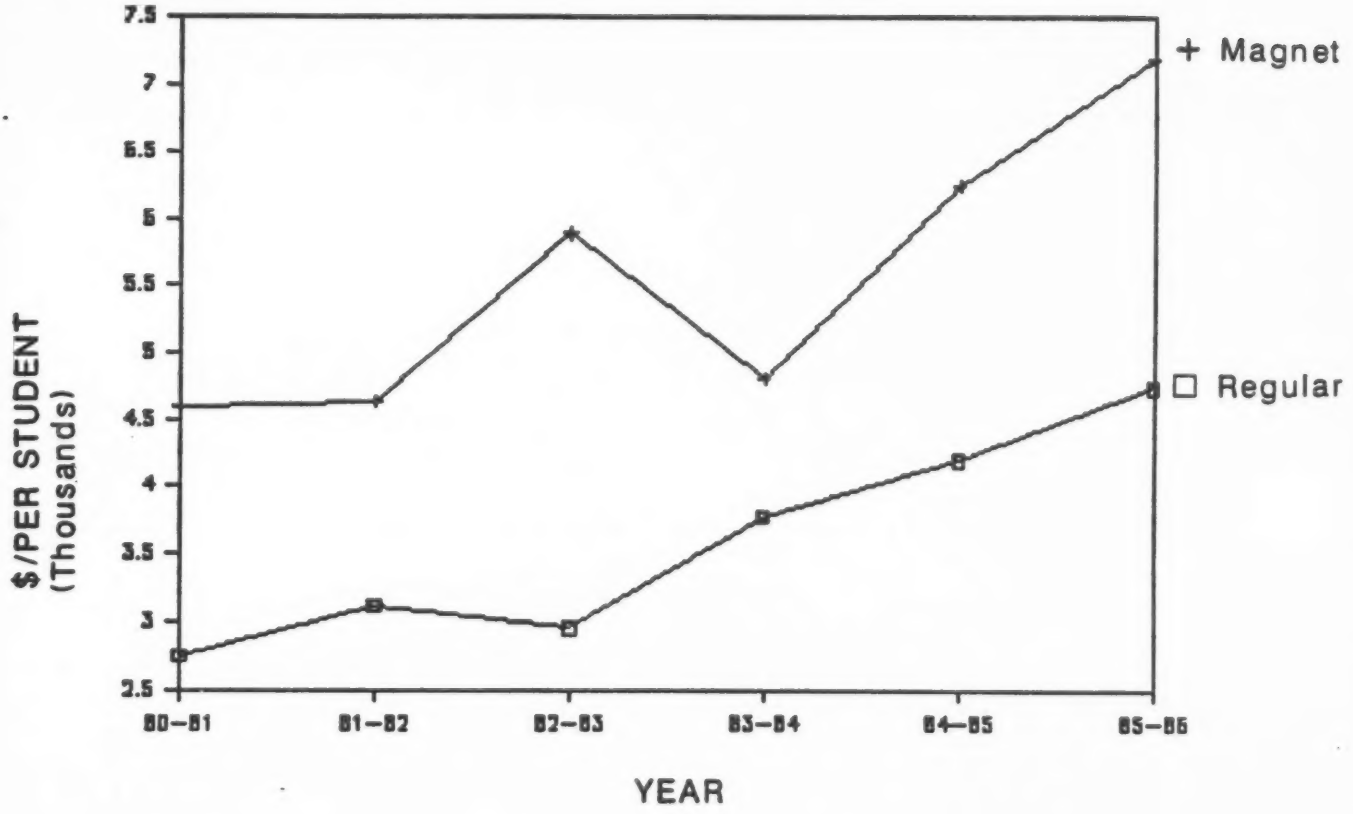
Logic suggests that once the initial costs have been addressed, there would be a declination in the resource requirements relating to the support of magnet schools. And, hence, there would be the expectation that, although there would be a surge in the per student cost in magnet schools initially, there would be a corresponding drop both in actual dollars and in the percentage of variation between magnet and regular schools of a district over the years of its operations. The experience of the district under investigation on this point, however, has been telling.

An examination of the district's Annual Financial Reports over the last six years on costs per student based on school disbursements, both direct and indirect, has revealed less than a consistent pattern. The large, relative decline in the resource requirements of magnet schools based on cost per student, which was anticipated, did not occur. In fact, in two rather significant instances, the variation between magnet school per student costs and regular school per student costs actually, increased. The following charts and graphs are illustrative:

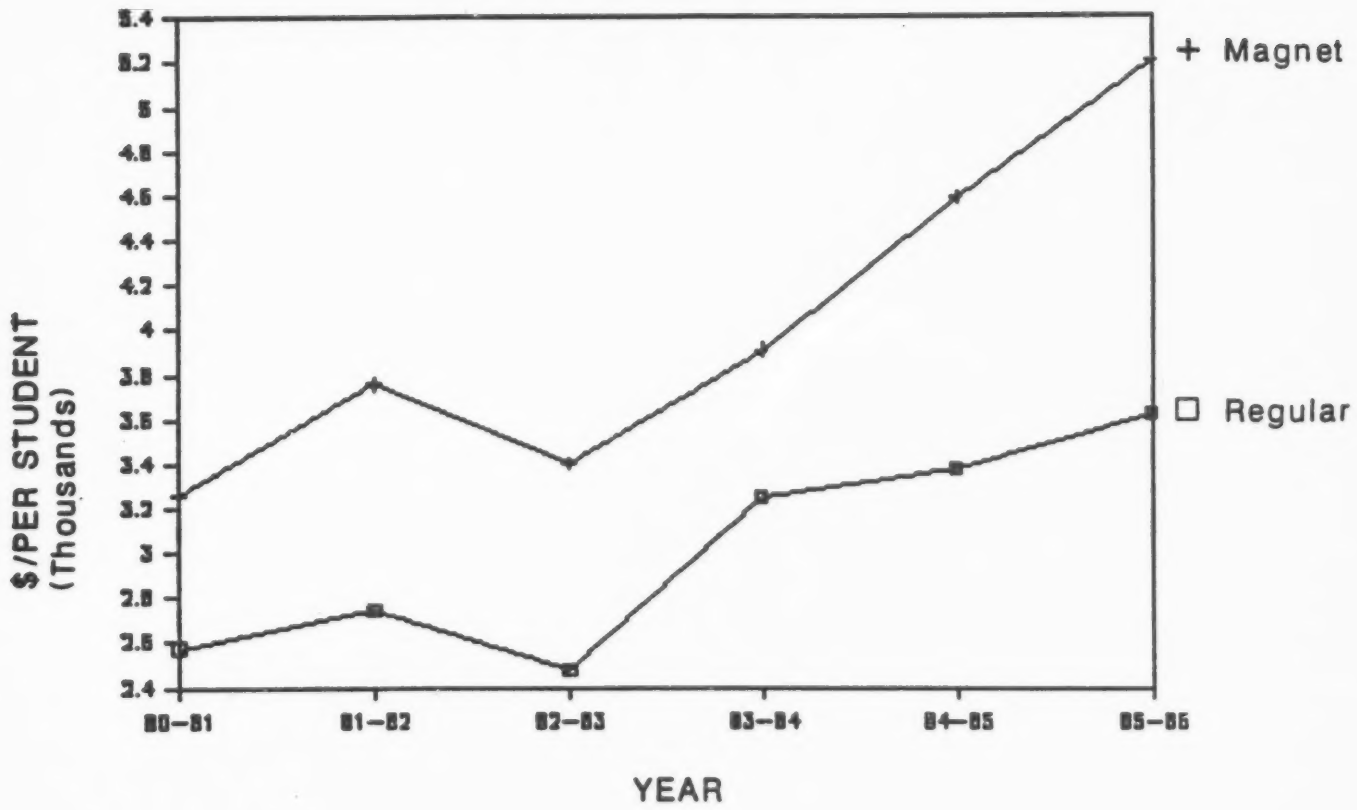
HIGH SCHOOL
PER STUDENT COST COMPARISONS 1980-86



MIDDLE SCHOOL
PER STUDENT COST COMPARISONS 1980-86



ELEMENTARY SCHOOLS
PER STUDENT COST COMPARISONS 1980-86



HIGH SCHOOL PER STUDENT COST COMPARISONS

(Based Upon Average Daily Attendance)

Class of School	80-81	81-82	82-83	83-84	84-85	85-86
Regular High Schools	$3,207	$3,439	$3,451	$3,947	$4,687	$5,134
Magnet High Schools	4,463	4,809	4,285	5,707	6,519	6,946
Percentage Differential	+39%	+40%	+24%	+45%	+39%	+35%

MIDDLE SCHOOL PER STUDENT COST COMPARISONS

Regular Middle Schools	$2,741	$3,116	$2,951	$3,781	$4,447	$4,739
Magnet Middle Schools	4,583	4,626	5,885	4,802	6,516	7,201
Percentage Differential	+67%	+48%	+99%	+27%	+46%	+52%

ELEMENTARY SCHOOL PER STUDENT COST COMPARISONS

Regular Elementary Schools	$2,575	$2,748	$2,477	$3,247	$3,520	$3,620
Magnet Elementary Schools	3,262	3,755	3,398	3,905	4,764	5,210
Percentage Differential	+27%	+37%	+37%	+20%	+35%	+44%

The presentations included in these graphical portrayals of resource requirements for magnet schools raise the important question of whether or not per student cost measures alone are the best gauges for ascertaining the effectiveness and efficiency of school operations.

Analyzing the Question of Shifting Student Costs

An increase in financial support to magnet schools and a corresponding dimunition of financial support to regular school programs would clearly imply a shifting of resources from regular to magnet schools. This matter is complicated, however, by the fact that, except for a single year in which the district resources met a multi-million dollar short-fall, the resources behind all schools significantly increased. The answer is not an easy one. In the absence of a resource pool which is constant, the question can only be inferentially answered by suggesting that if the resources supporting magnet schools remained on an even keel, the question of shifting costs is somewhat mooted because the resources were constantly expanding.

The actual experience of the district (excepting the anomaly year) is that in high schools and in the elementary schools -- the difference between regular and magnet schools in total dollars and in percentage of increase grew. Since there was significant growth in the per student costs of magnet schools when compared to regular schools of the district, one can be reasonably certain that there were student cost shifts even though the pool of dollars also expanded.

Additionally, it can be seen that not only did the shifts actually occur, they were of sizeable magnitude.

The questions of whether or not the shifting of student costs was accomplished in an equitable way and the resultant impact on non-magnet schools are both questions whose answers remain less than conclusive. Equity can be approached in terms of that which is appropriate as opposed to that which is the same. It appears that the shifting did occur in a way that appears equitable, in that the program requirements were reasonably met in both magnet and non-magnet schools. When an explanation of critical budget considerations (personnel, class size, supply and equipment purchases) was made, the budget levels and instructional support levels were maintained. The question of whether or not there would have been significant improvements in such areas had additional resources been available is not clear based upon expenditure patterns which are available. Said another way, this investigation did not reveal that there were program requirements of non-magnet schools which were diminished as the result of enhancing magnet schools. Hence, any (negative) impact on non-magnet schools was negligible.

Variances can be anticipated if magnet school programs are expanding and/or if new magnet programs are brought on line. Additionally, variances can be anticipated among magnet schools and between magnet and non-magnet schools when one considers whether such schools are of the high cost, average cost or low cost variety, depending

on their special requirements. More is said on this subject in the section on "Magnet School Organizational Patterns."

Error of Measurement: Start-Up Costs/
On-Going Program Comparisons

In some instances, conclusions have been drawn where on-going programs have been compared with start-up programs. The conclusions may have had increased validity if, for example, they had been based on average costs associated with a new regular school and a new magnet school or where, by using some operational definition*, an on-going regular school were compared with an on-going magnet school. Certainly, experience will reflect that in opening new schools, whether regular or magnet, a number of start-up costs will decline over time. But by comparing that which is on-going with that which is coming on line, the cost disparity is exaggerated.

Can Magnet Schools Be Administered Ultimately
At Per Student Cost Compared To Non-Magnet Schools?

One of the more interesting questions to be raised by financial experts in the area of education is the degree to which costs of magnet schools will approximate costs of non-magnet schools over time and whether, in fact, magnet schools can ultimately be operated at a cost comparable to that of non-magnet schools. There

*Operational definition, a designation of an arbitrary period in operations for which comparisons are made. (e.g., in the 5th year of operations or after 10 years of operation.)

are several variables which one must consider in responding to this question. The definition of magnet schools themselves may well be a point of departure, inasmuch as magnet schools possess an attractability which is usually based upon an "extra" which is not present in regular schools. As such, this "extra" suggests that costs associated with magnets would always exceed that of regular schools. Whether that "extra" is in a specialty component or in different class ratios, or in a heightened level of instructional support, the associated cost is generally an "add-on" as opposed to a "substitute-for." Parenthetically, we note that the present push for quality in educational programming could conceivably result in regular schools having components and characteristics very similar to those of magnets as they gain in educational quality and attractability.

But if magnet schools still hold an attractability edge, such schools will possess additional differentiating qualities and characteristics and, consequently, will continue to require a higher level of resourcing.

An additional factor which skews the per student cost is that of fixed costs. Magnet schools generally operate at a lower actual capacity than the theoretical capacity because of the need in magnet schools for additional classrooms for specialized services and equipment and because the ratio of students to teachers, in some of these schools, is made lower as a feature of attractiveness (magnetism). As a consequence, the fixed cost is spread over a smaller number of students; hence, the appearance of a higher cost per student index.

In returning to the long-considered relationship between start-up costs and maintenance costs of magnet school operations, it is conceivable that were it not for the labor intensive nature of school operations in general, there would certainly be, over time, a lessening of the variance in costs. Yet, even in this consideration, it is the judgment of this investigator that the cost relationship would be somewhat analogous to the normal curve relationship to the base line which is described by some statisticians as being "asymptotic," that is that it would approach, but never reach, the cost of non-magnet schools. As educational planners come to better understand the elements which make for significant efficiency in the learning environment, there may be a point in the distant future where this question can be answered in the affirmative; but it is clearly not on the horizon at this point in time, based on the experience of the district under study.

Although we have indicated the recent experience in a large, urban district in the resourcing of its magnet schools, it should be pointed out that other research in the area of magnet school financing is at variance with the trends within the city district schools under study. Other researchers (Blank et al., 1983) indicate that the total cost per student in magnet schools in 1980-81 and '81-'82 was slightly higher — on the order of $200 per year. Although this is a modest differential, there were large cost differences among some of the districts in the study. That study found that extra costs were related to improved student outcomes.

Planning how to better use existing resources is one approach to resourcing magnet schools. While some magnet schools will require extensive additional costs for new buildings or major building renovation, equipment and supplies, these needs will not all be extensive in every case. This study further observes that magnets can be quite modest (in cost) while still achieving high education quality.

Whether the wide discrepancy observed in the district under study and in the observations of the two other studies mentioned is due to the time period in which the survey work was done is not clear. What is known is that magnet school costs can run from modest levels to very high levels. It is important, therefore, that school districts achieve a balance among the kinds of magnets based as much upon cost considerations as upon programmatic ones.

COST/BENEFIT THEORY IN EVALUATING RESOURCE REQUIREMENTS OF MAGNET SCHOOLS

Over the last several years, communities and educators themselves have raised large concerns about accountability in the educational enterprise. On some occasions, these concerns have been expressed simply in terms of the quality and quantity of educational services. More often than not, such expressions have been descriptive. However, questions are now being asked about the efficiency and effectiveness of school operations. A part of this new thrust can be accounted for by the "effective schools" movement; a part can be attributed to a business orientation in the management of schools. As efforts are made to continually examine the quality of school

programs and to make comparisons among them as to which tend to produce at higher levels, the way in which schools and their operations are analyzed must be expanded.

This writer suggests that although there are insights to be gleaned from the more traditional measures, there is also a need to examine and evaluate the efficiency and effectiveness of school programs and the resources required to support them based upon a cost/benefit theory applicable to education. It is possible to make a strong case for the efficiency and effectiveness of magnet schools in light of what they produce. Clearly, magnet schools are positively correlated with educational quality, both perceived and actual.

Whether one uses the various corollates of the effective schools program or other elements which are associated with school efficiency and effectiveness, magnet schools as a generalized group tend to approach the standards that are regarded as important in the justification of the resource outlay which is required for them. The claims seem to be well documented; certainly they were found to be true in the magnet schools of the district under study.

Student achievement is always critical in the assessment of the effectiveness of an instructional program. In this regard, students who attend the magnet schools of the district achieved significantly higher levels on major achievement measures: reading, mathematics and language.

Attendance is another factor which is frequently associated with school success. Here again, in the secondary schools of the district, magnet school attendance was

approximately 5 percentage points above that of students in regular schools over the last several years; in middle schools 2 percentage points above, and in elementary schools 1.5 percentage points above. Attendance is not only important from the point of view of instructional efficiency, in that the instructional staff is focusing upon almost all of its students each day, but the state reimbursement to the district is appreciably enhanced because of such attendance.

It is fairly well documented that students in magnet schools are better motivated and tend to have far fewer problems of discipline and self-control. As a consequence, magnet schools are often described as having environments that are safer and more supportive than those of regular schools.

In the speculative realm, as one looks to postsecondary education and to the earning power which is generally associated with the quantity and quality of post-secondary education and to contributions this element tends to make to the community, all such factors auger well in making a strong case from the point of view of cost/benefit. The resourcing of magnet schools, even in the higher cost programs, is well spent, and, when given the longer view, tends to be far less expensive than regular programs. The celebrated economic study (Schultz, 1972) aligns this phenomenon to that of allocative benefits.

Magnet schools have been shown to be powerful vehicles for building/rebuilding the public confidence in schools. What this may mean ultimately is incalcuable.

MAGNET SCHOOL ORGANIZATIONAL PATTERNS: IMPLICATIONS FOR RESOURCING

Magnet schools are variously organized from a programmatic and an organizational stance. What is often not well understood, however, are the total financial implications of the programmatic and operational dimensions of such schools. It is important at the outset to understand that just as regular schools run the full gamut from low cost programs in a comparative sense to high cost programs, so do magnet schools. Formerly, vocational and special schools (programs) were thought to be non-regular schools. But now, because of the heightened understanding of the diverse student needs and because of the many legislative mandates which give guidance to providing educational services, such schools can no longer be thought of as non-regular. Depending on programmatic themes which imply curriculum of a special character and kind and which are either constrained or enhanced by equipment, supplies and specialized personnel, a school district must be prepared to adequately resource the school if the school is to achieve its raison d'etre.

Regular School Plus Specialized Components

A review of the educational literature on magnet school program patterns reveals that some magnets represent an "add-on" to the regular school. Said another way, such arrangements represent a regular school plus a specialized component. The specialized components must be clearly seen as an additional financial responsibility.

Specialty Schools

Some magnet schools are organized around a special curriculum theme. Many such schools will use the specialty theme as the vehicle for teaching that which is normally taught in a regular school and more. In this arrangement, however, speciality is not an "add-on"; it is, in fact, the major element in a recurring series of curricular motifs. Sometimes the resourcing of this school is no greater than that of a comparable regular school; sometimes because of the theme chosen and the manner in which the program is articulated, such schools can cost a great deal more.

Part-Time Schools and Programs

A number of magnet schools and programs are successfully organized on a part-time basis. Frequently, the services provided are of such high quality that school personnel want to share that service with as many students as possible. While this arrangement embellishes the regular offerings of students, the cost implications are generally far less when amortized over the expanded number of students who benefit from this arrangement. Schools and programs organized in this fashion must be chosen selectively and should generally be ones which encourage, if not indeed, require independent work on the part of the student during the intervening period of his attendance.

Finally, it should be noted that the magnet school organizational patterns will influence resource needs and should be considered in light of the detailed requirements for magnet schools which are discussed in the following sections.

PLANNING AND RESOURCING OF MAGNET SCHOOLS: A PROTOTYPICAL MODEL

The successful planning and resourcing of magnet schools is largely dependent upon a carefully detailed plan embracing the many elements which must be considered and which have a cost attached. It is not possible to plan for the resourcing of a magnet school until it is clear as to what elements are going to be resourced. In an effort to provide guidance on this point, this section is devised to specify many of the key elements for which resources must be provided.

Human Resource Issues

Human resource issues will constitute, perhaps, the largest dollar consideration in magnet resources. This should not be surprising, in that schools are generally labor intensive environments; magnet schools tend to be even more labor intensive.

Magnet schools which enjoy considerable success from the point of view of planning and resourcing are often guided by a general planning team. This team will require the necessary personnel who have been given adequate time and resources to carry out the overarching planning that must be done. The general planning team should be comprised of persons who are knowledgable in specific areas which must be given attention within a school district. A frequently occurring problem is that planning teams are made up of key staff personnel who are already overextended. As a consequence, they frequently lack the time and energy necessary to provide the high level of guidance to the many developmental activities that will ensure the school's success.

The curriculum and programs unit within a district is crucial to the total planning effort. This unit must provide specific curriculum planning as it relates to the magnet school that is contemplated. The planning and development activities must be thoroughly done and should include not only a full description of the program but also a design for its operational elements. The curriculum and programs unit must ensure that the special service dimensions (field experiences, special examinations, admissions, licenses, uniforms, etc.) are identified and costed out. Similarly, specialized equipment and supplies must be accounted for.

Flowing from the work of the curriculum and programs unit should be a plan for identification of staff. Staff selection must be achieved for the regular and speciality program components of the magnet school. Generally, such staff will be drawn from the ranks of other schools of the district. Where this is not a viable option either because such personnel are in limited supply or are not otherwise available from the district's personnel pool, they must be recruited very often from colleges and universities, sometimes from other districts and, obviously, from the labor force of the wider community.

Equally important, is the development and inservicing of staff once they have been recruited. Such development is usually very intense in the early period in the school's history. And, while staff development activities are extensive in the school's inception, they are continuing. Such activities must be planned for in the resourcing of the school.

The impact of drawing staff from other schools can be negligible if the non-magnet schools from which they come have strong faculties and if the district has a personnel pool of applicants sufficient to generate necessary replacements. If, on the other hand, key staff are pulled from existing schools and the possibility of quickly identifying well-qualified replacements does not exist, then the impact on non-magnet schools of the district can be damaging, indeed. Each magnet school, however, must be looked at individually in terms of the availability of both regular and speciality staff.

Student recruitment is another large activity that must be resourced. As with all other components, student recruitment activity must be carefully planned and should, as a minimum, have marketing and student selection components. Additionally, if the new magnet school is to be located in an existing facility which is operational, provision must be made for the relocation of those students and services which are not a part of the new magnet school.

The involvement of parents both in the planning of the new magnet school and in their inservicing must be given careful resource consideration. Parents may have need for special learning materials or simply the need to meet on occasion to raise questions and express concerns, or to secure clarification regarding the new school. As simple an item as this may seem, some magnet schools had problems where this component was not carefully planned and resourced.

Public relations activities cannot be overemphasized. Whether this function is underwritten, in an already existing public relations unit of the district, or whether

a new component must be created, this function must be well thought through and planned for in the budget. A public relations unit would not only require the services of staff, but additionally will require special supplies, equipment and even special services capability as in the case of provision for radio, newspaper and sometimes television time.

Beyond the personnel already mentioned, a strong magnet school resource plan will consider volunteers, as well as community agencies and institutions which will share in the support of the magnet school. These, too, are frequently an afterthought in the development of the resource plan.

Another function which has important implications for a successful magnet school program is that of evaluation and assessment. Too often the evaluation component of magnet school proposals is overlooked in program resource planning and budgeting. It may be inappropriately assumed that program evaluation should not occur until the program is established and in operation for a year or two. There are, however, several benefits to including the evaluation component as an integral part of the project from the beginning. At the outset the evaluator can conduct systematic reseach as part of the planning process. This synthesis of the research provides a useful perspective in the initial planning and review of the project proposal. As part of the project design, evaluation can ensure that adequate controls are built in, whenever possible, so that project outcomes may be more meaningfully interpreted employing valid bases for drawing conclusions about the effectiveness of the project.

Frequently, outcomes cannot be attributed to the project because of failure to build in controls during the planning stages. Another important consideration in the inclusion of resources at an early stage for evaluation and assessment is to assure formative feedback. That is, as the project progresses, evaluation performs a monitoring function to determine if implementation is proceeding as planned. Such monitoring is useful for modifying the project, if necessary, as well as for interpreting program outcomes. For all of these reasons, incorporating an evaluation component into magnet school resource proposals serves to strengthen program planning, implementation and operations.

Provisions for budget planning and management should be a part of the resource plan. If the magnet program of a district is small, this activity can sometimes be folded into the work of the existing budget office. However, when the magnet programs of a district are extensive and require millions of dollars, often from multiple sources, extra personnel may be needed in the budget office. Without this resource provision, cost and resource identification is frequently less than adequately provided for and cost containment failure can find school districts in not only difficult but embarrassing straits.

Not every human resource need has been included; however, it is believed that this discussion may be suggestive for resource planning in this area.

Physical Resource Requirements

Another large activity within the resource plan must be the adequate provision of the numerous physical needs in developing the magnet school program. The need for facilities is so obvious that on occasion their planning for has been overlooked. In planning for the magnet school facility, careful attention must be given to design use of space vs. actual use of space. The theoretical vs. actual capacity issue is one that plays havoc with cost distribution, particularly since in most magnet schools space that would be used for additional classrooms is converted to support space for the magnet specialty. As a consequence, overhead costs in magnet schools can skew the cost index, since in regular schools the overhead is distributed, generally, over a larger number of students.

In planning to resource the facility needs, consideration must be given to stationary equipment and funishings. Both of these will need to be planned for in terms of their base cost, if they must be secured, or for their relocation if they are already on hand but are to be used in a different facility. Associated installation costs must not be overlooked. Utility costs (telephones, water, electricity, gas) are on-going and should also be included in the resource plan.

Readying a facility for a magnet program can be a costly item, in that such readying will require building, renovation, repair or at the vary least, cleaning. There can be no easy formula for such planning and resourcing, since there will be variances with types and sizes of magnet schools.

In addition to the stationary items that must be accounted for there must also be the programmatic items of equipment, furnishings and space, for both students and staff. A carefully detailed resource plan will include provision for these as well.

Transportation of students can be a prohibitive cost, but inasmuch as it is almost always required, its provision must be given thoughtful consideration as a major budget item. The student transportation plan is so complex as to require experts in this area to develop the details. A sound transportation plan is one which is responsive to: board policy in terms of the distance or special conditions which will necessitate transportation; the kind and character of transportation vehicles that should be engaged for the number of students; insurance; the routing possibilities; vehicle purchase and maintenance; student concentrations; loading factors; length of routes; management; and, obviously, a range of personnel for the many associated activities, including drivers, supervisors, dispatchers and maintenance personnel. There are many approaches to the movement of students. However, whether chartered, owned, or a combination of these, resource provisions must be considered.

Staff travel, whether it includes movement from one site to another site for duty or to other points within the local community or elsewhere for necessary consultation, is an important item and must be included in the budgeting process.

The need for comprehensive resource planning is considerable if magnet schools are to be the effective models for attracting students and for promoting quality

education. Such a plan would have at least two basic components: one which details the costs of the many elements which make up a magnet school and a second which identifies the sources of the needed resources.

Resource Leveraging

In planning for resource leveraging, consideration must be given to every possible source of funds. To begin, it is important for school districts to examine how existing school resources can be reconfigured in order to assist with the resource needs of the new magnet schools. The importance of the involvement of the business and corporate communities has been well established in virtually every community which has a strong educational program. Such involvement is important to regular schools; it becomes critical to magnet ones.

The support that can be provided through cultural agencies, other educational and governmental institutions and an array of specialized organizations within the community can be critical to the success of magnet programs.

Foundations, both local and national, must be included in the resource plan, for they have played increasingly large roles in the support of educational programs. In some instances, a few foundations have been sufficiently generous as to provide seed money necessary to planning for and building toward more comprehensive programs.

Governmental agencies and their extensions at the federal, state and local levels comprise a large source of assistance and financial support. Without the assistance of governmental agencies, many large, successful magnet programs would fail.

Finally, in terms of resource leveraging, the community in all of its dimensions, should be explored for support. Such support comes in various shapes, sizes and forms. Volunteers, for example, come not only from corporations but also from grass-root programs and from other ranks within the wider community. Resource leveraging needs to be built into any resource plan, for in the absence of such leveraging, districts would be faced with the hard options of eliminating meaningful services and vital support which are critical to a program, or with providing the additional funding directly.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study illuminates the fact that resourcing magnet schools is a formidable task. However, magnet school resourcing is enhanced where there is a carefully-designed, overarching plan which identifies major components and where there is a detailed component plan which identifies the myriad of functions and activities to be resourced. It also points up the need for a carefully designed plan for developing resources. Few schools or school districts in the public domain will have sufficient resources to fund magnet schools at the required levels, without assistance. Consequently, there should be an accompanying resource plan which identifies every possible source of both funds and services which will enrich the magnet school offerings.

Finally, this investigator concludes that because the research literature which speaks to resourcing magnet schools is sparce, additional studies in this area are needed.

Recommendations

A number of large concerns and issues surrounding the resourcing of magnet schools remain inconclusive and/or still speculative in nature. As a consequence, this investigator believes that the following issues/questions would benefit from additional research and/or activities:

1. Data should be collected from several districts which operate magnet schools in order to better establish the relative costs of magnet and non-magnet schools and to better analyze differences by type of cost over time.
2. A study should be conducted to reconcile differences between the assumption of diminishing costs in the operation of magnet schools and the actual expenditure experience of such schools.
3. In order to reduce the error of measurement in comparing costs of magnet schools and regular schools, a study of new regular schools should be compared with new magnet schools, inasmuch as both require relatively large start-up costs.
4. It will be important to school districts to understand the relative cost differences which can be anticipated based upon organizational arrangements. Additional studies in this area will not go unnoticed.

There are implications for which research can shed light on other aspects of costs associated with the operation of magnet schools and which are elsewhere imbedded in this Paper. However, recommendations have focused on those large questions which would seem to have the greatest impact on future magnet school resourcing.

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